

TEXAS A&M UNIVERSITY
CPSC 483: COMPUTER SYSTEM DESIGN
SPRING 2005

GRADING CRITERIA for the WRITTEN CRITICAL DESIGN REVIEW

The Critical Design Review (CDR) defines a transition between the design stage of your project and the implementation/integration stages. In a typical project, all decisions have been made at this point concerning *what will be built and how it will be tested*.

The objective of the CDR is to present a complete design of the system, an implementation plan and validation/testing procedures. A successful CDR presentation and report will have the following components:

- Brief review of the project (10%), including
 - Problem background
 - Needs statement
 - Goals and objectives
 - Literature survey
 - Design constraints
 - Alternative solutions considered
 - Engineering standards: economic, societal, safety and environmental analysis
- Proposed design (70%), containing
 - System block diagram (20%) with a functional description of parts and interfaces
 - Complete specifications (30%) and detailed design of each subsystem, including
 - Circuit and logic diagrams
 - Interfaces and pin-outs
 - Timing diagrams and waveforms
 - Software processes with their inputs and outputs
 - Complete parts list
 - Updated validation/testing procedures (20%)
- Project management (5%), including
 - Updated detailed schedule with planned deliverables
 - Updated division of labor and responsibilities
- Preliminary results (15%): Test results and demo of completed parts of the system at the time of the CDR. Demos can be videotaped with the assistance of the TAs using the camcorder in the lab. A TV/VCR will be available in the classroom during presentations.